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Complete Specification Left, 28th Oct., 1902—Accepted, 15th Jan., 1903

PROVISIONAL SPECIFICATION.

Improvements in or connected with Massage and Electro-therapeutical Apparatus.

I, David Robert Paterson, of Langham Mount, Langham Road, Bowden, in the County of Chester Manager of a Limited Company, do hereby declare the nature of this invention to be as follows:—

This invention has reference to the massage and electro-therapeutical treatment of various local diseases, by certain improved apparatus and mode of operations hereafter described.

The apparatus or appliance, under this invention, which is used to act upon the surface of the skin, consists of a rotary flagellator, in which the flagellating medium consists of flexible fine spines, some of which are of textile or analogous fibres or threads, and some of fine metal; and these latter are adapted to be put in and out of connection with a suitable source of electrical supply; and furthermore, in the treatment and use of this apparatus it is adapted to be revolved at a very high speed.

The rotary flagellator may be mounted in a similar manner to rotary brushes such as barbers use, and be driven by an electro-motor through a flexible shaft and gearing, in any suitable way; or, it may have a handle or handles, at right angles to its axis, and supporting the axis by suitable supports.

The electrical current is supplied to the flagellating wires or conductors of the rotary appliance, by way of a handle or handles, or other suitable part, through suitable conductors extending between the source of supply and the terminals of the wires in the body of the appliance.

In connection with this current supply, controlling means are employed, by which the intensity or quantity of current can be regulated, that is, increased or diminished at will; so that, while the apparatus is being used, varying current may be applied at any stage or stages of the treatment; and the strength of the current will be a weak one in most cases, and the supply will generally be separate from that for driving the motors, or reduced from a common source of supply.

In some cases the degree of current being supplied to the flagellating apparatus is made known to the user by the employment in the circuit of a sounding device, such as an electrically operated "buzzer" or bell. Further, in some cases, the current supplied to the flagellator apparatus may be of the alternating type of high frequency.

In one form of rotary flagellating apparatus, the non-electric flexible flagellating spines may consist of silk or equivalent soft fibres, while the metal conducting spines may consist of very fine metal wire, and these will in some cases be distributed amongst the silk or like spines or fibres.

By an apparatus so constructed, and running at a high speed, a gentle tittilating action and effect is produced, which together with the supply of electricity, the degree or intensity of which can be varied readily at will—or

entirely cut off—furnishes a mode of treatment which is very advantageous and beneficial.

Dated this 27th day of January 1902.

CHEESBROUGH & ROYSTON
Applicants Patent Agents,
15 Water Street, Liverpool.

COMPLETE SPECIFICATION.

Improvements in or connected with Massage and Electro-therapeutical Apparatus.

I, DAVID ROBERT PATERSON, of Langham Mount, Langham Road, Bowden, in the County of Chester, Manager of a Limited Company, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention has reference to the massage and electro-therapeutical treatment of various local diseases, by certain improved apparatus and mode of operations hereafter described.

The apparatus or appliance, under this invention, which is used to act upon the surface of the skin, consists of a rotary flagellator, in which the flagellating medium consists of flexible fine spines, some of which are of textile or analogous fibres or threads, and some of fine metal; and these latter are adapted to be put in and out of connection with a suitable source of electrical supply; and furthermore, in the treatment and use of this apparatus it is adapted to be revolved at a very high speed.

The rotary flagellator may be mounted in a similar manner to rotary brushes such as barbers use, and be driven by an electro-motor through a flexible shaft and gearing, in any suitable way; or, it may have a handle or handles, at right angles to its axis, and supporting the axis by suitable supports.

The electrical current is supplied to the flagellating wires or conductors of the rotary appliance, by way of a handle or handles, or other suitable part, through suitable conductors extending between the source of supply and the terminals of the wires in the body of the appliance.

In connection with this current supply, controlling means are employed, by which the intensity or quantity of current can be regulated, that is, increased or diminished at will; so that, while the apparatus is being used, varying current may be applied at any stage or stages of the treatment: and the strength of the current will be a weak one in most cases, and the supply will generally be separate from that for driving the motors, or reduced from a common source of supply.

In some cases the degree of current being supplied to the flagellating apparatus is made known to the user by the employment in the circuit of a sounding device, such as an electrically operated "buzzer" or bell. Further, in some cases, the current supplied to the flagellator apparatus may be of the alternating type of high frequency.

In one form of rotary flagellating apparatus, the non-electric flexible flagellating spines may consist of silk or equivalent soft fibres, while the metal conducting spines may consist of very fine metal wire, and these will in some cases be distributed amongst the silk or like spines or fibres.

The invention will be further described with the aid of the accompanying drawings, in which Figure 1 is a plan of the apparatus; and Figure 2 is a front elevation.

Referring generally to the drawings, *a* is the rotary flaggellator, *e* is the electric motor for revolving it, and *i* is a hollow flexible metallic shaft connecting the rotary portion of the motor with the body of the flagellator *a*.

f are electric cells for supplying current to the metallic spines or wires of the flagellator. *g* is an induction coil with usual regulator from which the secondary current passes to the flagellator metallic spines or wires. f^1 are the leads conveying current from the cells *f* to the binding terminals of the induction coil device *g*, and g^1 is the wire conveying the secondary current to the flagellator metallic spines, this wire being led to the interior of the motor, and then along through the hollow metallic flexible shaft *i* to the body of the flagellator *a*, within which it will be connected up electrically with the spines.

The body a^1 of the flagellator *a* is of insulating material, and it is provided with a handle *b* of insulating material, the end of which fits in the body *a*, and upon which the flagellator body revolves; while the shaft *i* passes loosely through the handle, and is suitably connected up with the body a^1. g^2 is the other secondary wire connected with the induction coil *g* having at its end the metallic handle *k*, which is to be grasped by the operator, when using the apparatus.

l represents the cable for conveying current to the motor *e*, l^1 being the terminal fitting thereon for coupling up the cable to an electricity service, *m* is a switch on the cable *l* for cutting off and putting on the current.

Referring to the flagellator *a*, *c* represents the soft flexible spines of textile material, preferably, silk or like fibres or threads, and *d* represents fine metallic flexible spines; these spines are preferably shorter than the textile spines of flagellator *c*. This enables the electrical effect to be more easily regulated in its degree, as desired; namely, the lighter the pressure of the flagellator on the part of the body being operated on, the less will be the degree of the electrical action of the treatment, in proportion to the mechanical flagellation, due to the action of the textile spines *c*; and the harder the brush is pressed on to the part, the greater will be the degree of the electrical action and effect.

Furthermore, as regards the strength of the current supplied to the metallic spines *d*, this, of course, will be governed by the regulation of the induction coil *g*, as will be well understood.

In some cases, when desired, a second handle, shewn in dotted lines and marked k^1, is connected up with one of the terminals g^3, by a wire k^2, in which case, the wire g^1 will be disconnected from its terminal. In this condition, the electrical device *g* is, by means of the handles *k* and k^1, used as an ordinary medical battery appliance, whilst the flagellator *a* is employed without current, and the silk or textile spines *c*, alone, act upon the part of the body to be treated.

In the apparatus shewn in the drawings, the electric cells *f*, switch *m*, motor *e*, and regulator *g*, are all arranged together and stowed within a box *o* having a door o^1 at the front and a lid o^2 at the top, the door and lid being mounted on hinges. When the apparatus is to be used, the door o^1 and lid o^2 are opened, and the flagellator *a* and handle *k* taken out; while when it is desired to shut the apparatus up, the door and lid are closed, the flagellator, with its shaft, and the handle *k* are stowed within the box. When the apparatus is shut up, it is portable, the box being provided externally with a suitable handle or handles.

By an apparatus so constructed and running at a high speed, a gentle tittilating action and effect is produced, which together with the supply of electricity, the degree of intensity of which can be varied readily at will—or entirely cut off—furnishes a mode of treatment which is very advantageous and beneficial.

Having now particularly described and ascertained the nature of this invention and in what manner the same is to be performed, I declare that what I claim is:—

1. A massage or electro-therapeutical apparatus comprising a rotary flagellator, the operative parts of which consist of flexible textile fibres or threads,

and fine flexible metal spines. and electrical motor for rotating said flagellator, electric cells, and an induction coil device connected up with the flexible metal spines of the flagellator for supplying current to same; arranged and adapted to operate substantially as set forth and shewn.

2. A massage or electro-therapeutical apparatus comprising a rotary flagellator having flexible metallic spines, a galvano-electric cell, an induction coil device with which the metallic spines of the flagellator are electrically connected, and a contact handle connected electrically by a wire with the induction device; substantially as set forth.

3. In massage or electro-thereapeutical apparatus, a rotary flagellator comprising fine flexible textile fibres or threads, and fine flexible metallic spines, said metallic spines being adapted to be electrically connected to suitable source of electricity supply.

4. In massage or electro-thereapeutical apparatus, a rotary flagellator comprising the parts arranged and adapted to operate particularly as shewn in and set forth with reference to the drawings.

Dated this 27th., day of October, 1902.

CHEESBROUGH & ROYSTON
Applicant's Patent Agents, 15 Water Street, Liverpool.

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FIG. 1.

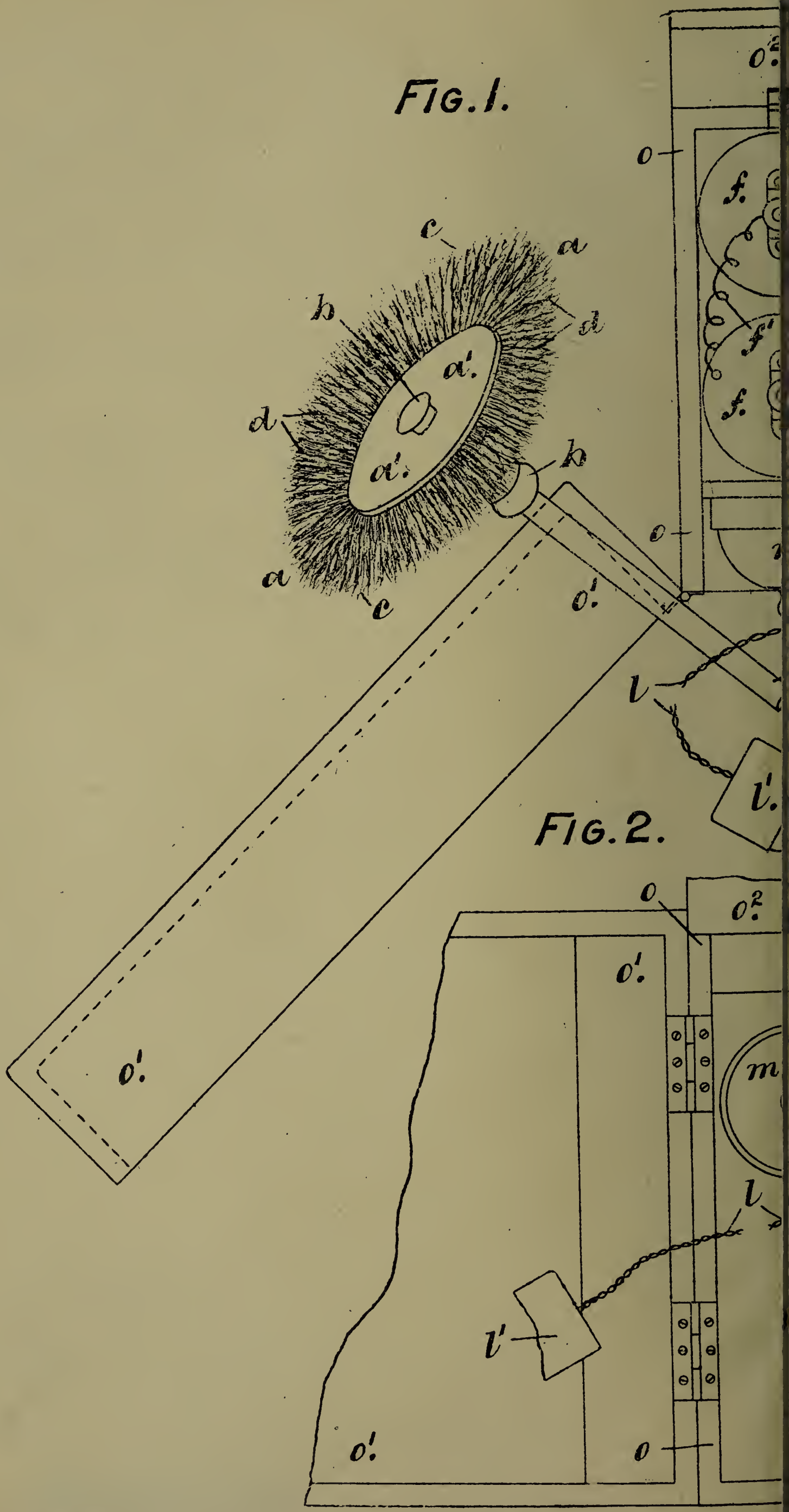
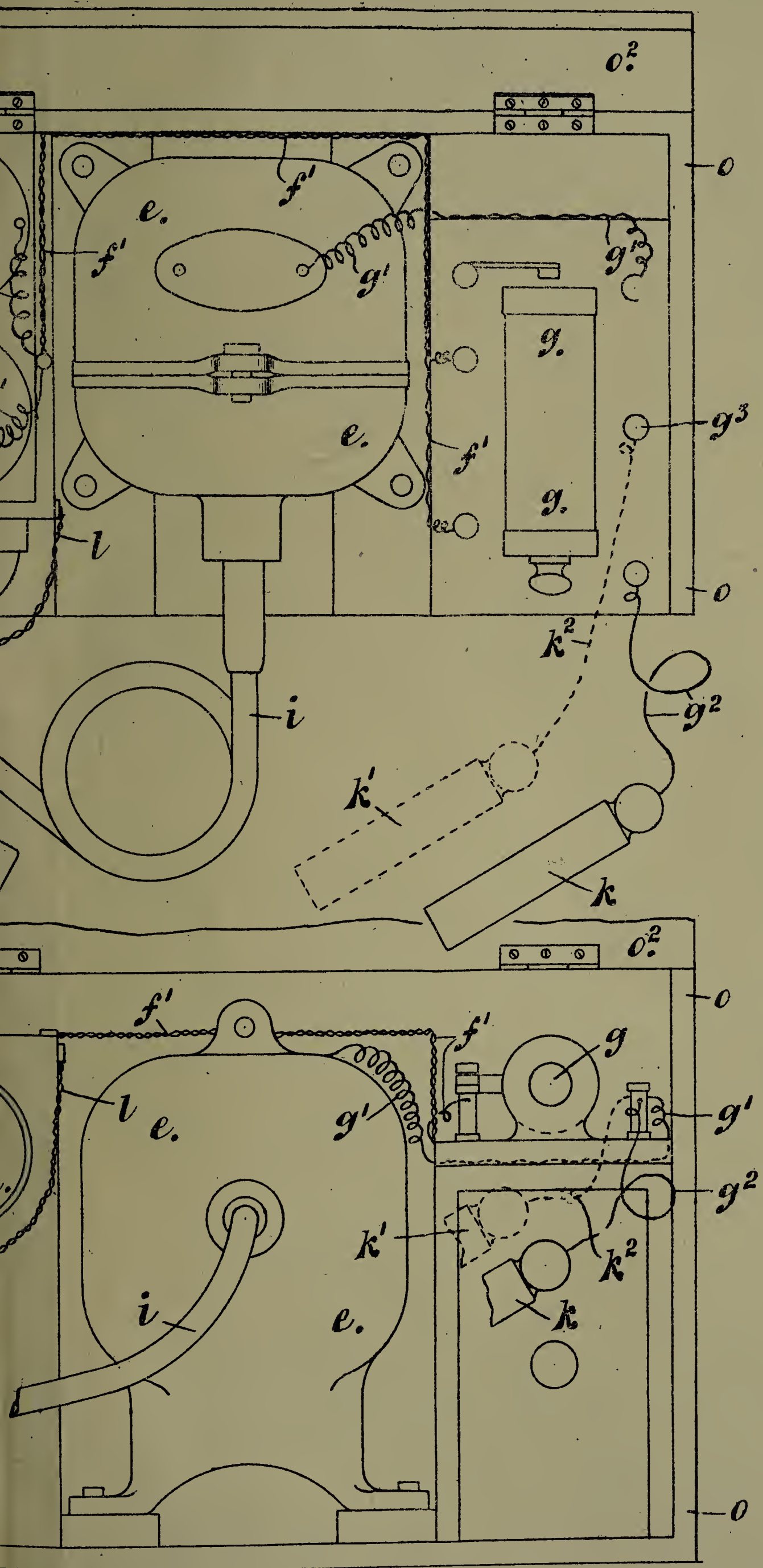


FIG. 2.



[This Drawing is a reproduction of the Original on a reduced scale.]

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